



## Village of Lombard, Illinois

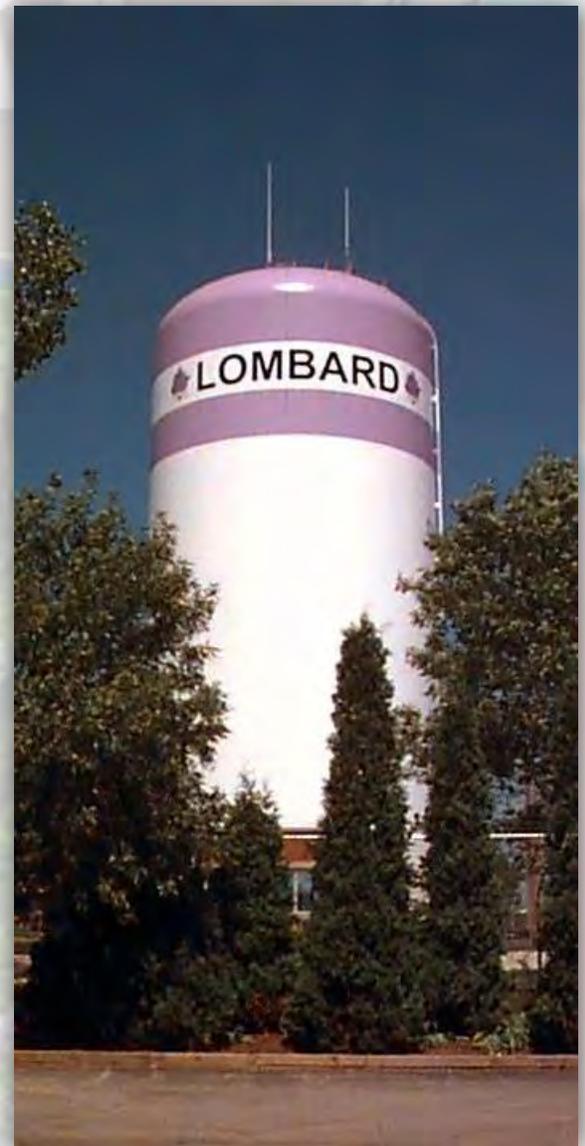
# 2017 Annual Water Quality Report

The Village of Lombard is proud to present its residents once again with this water quality report. This year's edition covers water tested from January 1, 2017 through December 31, 2017. The Village is dedicated to providing the highest quality drinking water to its customers in the most reliable and professional manner. The goal of Village officials and staff is to achieve complete consumer confidence in our drinking water supply by maintaining a premier water system and open communication with our customers. This water quality report is intended to provide you with important information about your drinking water which includes drinking water facts, information on violations (if applicable), and contaminants detected in your drinking water supply. If you have any questions about this report, please contact Brian Jack, Utilities Superintendent at (630) 620-5740, or via email at [jackb@villageoflombard.org](mailto:jackb@villageoflombard.org).

For more information, news and special updates from the Village of Lombard, get connected and follow us on social media at [www.villageoflombard.org/socialmedia](http://www.villageoflombard.org/socialmedia). You may also sign up for the Village's weekly E-News email newsletter by going to [www.villageoflombard.org/e-news](http://www.villageoflombard.org/e-news).

### Community Participation

The Village Public Works Department continues planning improvements to the water distribution system through the Capital Improvement Plan. These improvements along with routine maintenance by the Department's operational staff increase the safe, reliable, and efficient operation of the Village's water system. The Village is committed to providing you with this information. We welcome you to attend any of our Public Works & Environmental Concerns Committee meetings held on the second Tuesday of every month at 7:00 pm in the Public Works Conference Room, 1051 S. Hammerschmidt Ave. or our Village Board Meetings held on the first and third Thursday of each month at 7:00 pm at the Lombard Village Hall, 255 E. Wilson Ave. Board Meeting agendas and minutes are posted in the Agendas & Minutes tab on the Village's home page at [www.villageoflombard.org](http://www.villageoflombard.org).



### That's Some High Quality H<sub>2</sub>O

The Village of Lombard's drinking water supply met all United States Environmental Protection Agency and state drinking water health standards and we are proud to report that no violations of a contaminant level or any other water quality standard were received in the 2017 sampling year.

## Where Does My Water Come From?



Lake Michigan is the primary source of drinking water for the Village of Lombard. Pretreated finished water is received from the DuPage Water Commission via the City of Chicago's Jardine Water Purification Plant, which is the largest conventional water treatment plant in the world! Lake Michigan is the only Great Lake that is entirely contained within the United States, bordering Illinois, Indiana, Michigan, and Wisconsin. It is the second largest of the Great Lakes by volume with 1,180 cubic miles of water and third largest by area. As water is received from the DuPage Water Commission, it is stored in two elevated storage tanks and three underground reservoirs totaling 6.2 million gallons. The water in the elevated tanks and reservoirs remain in constant motion to maintain freshness. Only a small amount of chlorine is added to the water as it is

pumped into the Village's 180 miles of water mains. To ensure purity, water samples are routinely collected throughout the water system, from the source right to your home. A State-certified laboratory tests the samples using equipment that can measure substances down to one part in one billion! That's one second in 32 years, or one pancake in a stack of pancakes four miles high (that's as high as 12 ½ Willis Towers)! In 2017, a total of 1.34 billion gallons of water was pumped from the four receiving stations, averaging 3,696,000 gallons per day. The Village also maintains three wells for emergency purposes, which are tested regularly to ensure that they will be ready if needed.

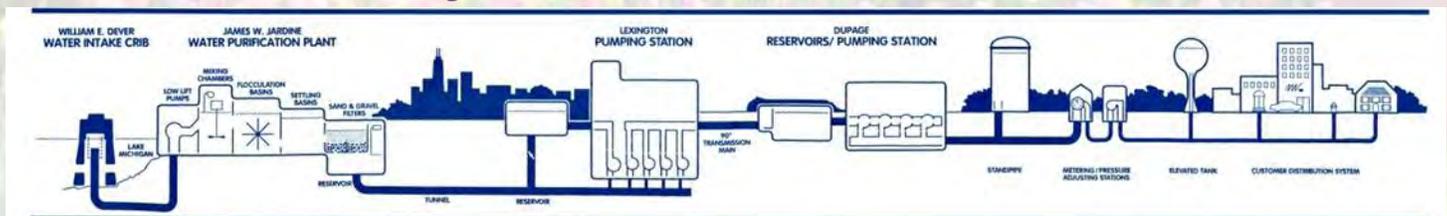


Jardine Water Purification Plant

## The Water Treatment Process or "Treatment Train"

Water from Lake Michigan is drawn into intake cribs about two miles offshore at depths of 20-30 feet below the surface. Water is then pumped in 10-20 foot diameter tunnels that are 200 feet below the lake bed to the water purification plants on the shoreline. Water is treated in a "treatment train" that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the raw water by adding chemicals (coagulants) to form tiny sticky particles called "floc" which attracts other dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved by using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves through sand and gravel filters to remove even smaller particles. A small amount of chlorine is added to kill bacteria and microorganisms that may be in the water before it is pumped to your home.

### The Treatment Train – Lake Michigan to Your Home



## City of Chicago Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination to determine the susceptibility of the source water to contamination. The Illinois EPA has completed the SWAP for our supply. Further information on our community water supply's SWAP is available by calling the City of Chicago's Department of Water Management (CDWM) at (312) 744-6635.

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois.

Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake. To view a more detailed source water assessment, access the Illinois EPA's website at :



[www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl](http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl).

## Lead and Drinking Water

The Village of Lombard is required by the IEPA to monitor for lead and copper in drinking water every three years. The sample results for lead and copper in this report is from the 2017 sample year and the next round of samples will be in July of 2020.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. You can minimize the potential for lead exposure by flushing your tap for 3 to 5 minutes before using the water for drinking or cooking. **Do not boil water to remove lead.** Boiling water will not remove lead and may increase the concentration as water evaporates.

As of January 16, 2017, all schools where kindergarten through 5th graders are present, as well as day care facilities must test all water sources used for cooking and drinking for the presence of lead. Any facilities constructed after 2000 are not required to complete the testing at this time. Schools will notify parents of the results, and if any levels exceed 5 ppb at any location, as well as any actions the schools are taking to reduce the levels.

The Village has generated an inventory of all known lead service lines in use, as well as public notification to homeowners if construction or repair work is completed on water pipes or water meters known to affect lead service lines due to the increased risk of lead exposure following pipeline disturbance. Contact Public Works at 630-620-5740 with questions about your water service line.

For more information on lead in drinking water, testing methods and steps you can take to minimize exposure, contact the Safe Drinking Water Hotline at (800) 426-4791 or go to <http://www.epa.gov/safewater/lead>.

## 2017 Voluntary Monitoring and Cryptosporidium

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has started the 24 months long monitoring program (April 2015 through April 2017), collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. coli and turbidity, with no detections for Cryptosporidium and Giardia reported so far.

In 2017, CDWM also monitored for hexavalent chromium, also known as Chromium-6. USEPA has not yet established a standard for Chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to CDWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for Chromium-6 are at [https://www.cityofchicago.org/city/en/depts/water/supp\\_info/water\\_quality\\_resultsandreports/chromium-6.html](https://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/chromium-6.html).

## Substances That May Be in Drinking Water



To ensure that tap water is safe to drink, the U.S.EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. The sources of drinking water (both bottled and tap water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, in some cases it dissolves naturally occurring minerals, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

- **Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive Contaminants**, which can be naturally - occurring or be the result of oil and gas production and mining activities.

## Important Health Information



Some people may be more vulnerable to contaminants in drinking water than the general population. Persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791.

## What's in My Water?

The City of Chicago Department of Water Management routinely monitors our drinking water for contaminants according to federal and state laws. The Village of Lombard collects 50 bacteriological samples each month, quarterly disinfectant by-product sampling, and monthly emergency stand-by well samples. The tables in the coming pages illustrate substances detected in our water for the period of January 1, 2017 through December 31, 2017. All of the substances listed are under the Maximum Contaminant Level (MCL) set by the U.S. EPA.

The Illinois EPA requires the Village to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

## Data Table Definitions

The following tables contain scientific terms, measures, and abbreviations, some of which may require explanation that you may need to understand the sampling data.

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**ALG (Action Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

**Avg:** Regulatory compliance with some MCL's is based on running annual average of monthly samples.

**Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. Therefore, some of this data may be more than one year old. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

**Highest Level Detected:** This column represents the highest single sample reading of a contaminant of all the samples collected during the CCR calendar year.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MLCG's as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL (Maximum Residual Disinfectant Level):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**N/A:** Not applicable.

**ND:** Not detectable at testing limits.

**NTU:** Nephelometric Turbidity Units. Used to measure cloudiness in water.

**%≤0.3 NTU:** Percent of samples less than or equal to 0.3 NTU.

**pCi/L:** picocuries per liter (a measure of radioactivity).

**ppb:** parts per billion, or micrograms per liter =  $\mu\text{g/l}$  or one ounce in 7,350,000 gallons of water

**ppm:** parts per million, or milligrams per liter =  $\text{mg/l}$  or one ounce in 7,350 gallons of water.

**Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

**TT (treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

# Water Quality Data for the Village of Lombard - 2017

Substance (Units of Measure) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
<b>MICROBIAL CONTAMINANTS</b>						
<b>Total Coliform or E. Coli Bacteria (% Pos/Month)</b> Naturally present; human and animal fecal waste	0%	5% of Monthly Samples are Positive	0	None	-	Monthly
<b>DISINFECTANT/DISINFECTION BY-PRODUCTS</b>						
<b>Chlorine (ppm)</b> Water additive to control microbes	4	4	1.0	0.8 – 1.0	-	Monthly
<b>HAA5 Haloacetic Acids (ppb)</b> By-product of drinking water disinfection		60	15	10.09 – 18.14	-	Semi-Annual
<b>TTHMs Total Trihalomethanes (ppb)</b> By-product of drinking water disinfection		80	37	20.7 – 54.4	-	Semi-Annual
<b>INORGANIC CONTAMINANTS</b>						
<b>Lead (ppb)</b> Corrosion of household plumbing systems; natural erosion	0	AL = 15	13.8 90 <sup>th</sup> Percentile	0 Sites over AL	-	9/2017
<b>Copper (ppm)</b> Corrosion of household plumbing systems; natural erosion	1.3	AL = 1.3	0 90 <sup>th</sup> Percentile	0 Sites over AL	-	9/2017
 <p>The following table is the water quality results for the Village of Lombard's stand-by wells. The Village does not pump or blend well water with Lake Michigan water received from the DuPage Water Commission into the water distribution system. These wells are maintained and tested regularly for use in the event of an emergency only.</p> <p><i>NOTE: The state requires monitoring for certain contaminants less than once per year as concentrations of these contaminants do not change frequently. Some of the data, though accurate, is more than one year old.</i></p>						
<b>INORGANIC CONTAMINANTS – Tri-annual sample period; next sample year 2020</b>						
<b>Arsenic (ppb)</b> Erosion of natural deposits; Runoff from orchards, glass and electronic waste	0	10	5.24	0 – 5.24	-	2017
<b>Barium (ppm)</b> Discharge of drilling wastes & metal refineries; natural erosion	2	2	0.0745	0.0567 – 0.0745	-	2017
<b>Fluoride (ppm)</b> Erosion of natural deposits; Water additive which promotes strong teeth; discharge of fertilizer and aluminum deposits	4	4	0.96	0.28 – 0.96	-	2017
<b>Iron (ppm)</b> Erosion of natural deposits	-	1	0.725	0.317 – 0.725	-	2017
<b>Sodium (ppm)</b> Natural Erosion; used in water softening	-	-	59.8	26.4 – 59.8	-	2017
<b>RADIOACTIVE CONTAMINANTS – Tri-annual sample period; next sample year 2020</b>						
<b>Combined Radium 226/228 (pCi/L)</b> Erosion of natural deposits	0	5	9.8	0.81 – 9.8	-	2017
<b>Gross Alpha Emitters excluding radon and uranium (pCi/L)</b> Erosion of natural deposits	0	15	31.3	-0.26 – 31.3	-	2017
<b>Uranium (µg/l)</b> Erosion of natural deposits	0	30	0.596	0.5662 – 0.596	-	2017



Substance (Units of Measure) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detection	Violation	Date of Sample
<b>TURBIDITY DATA</b>						
<b>Turbidity (NTU/Lowest %≤0.3 NTU)</b> Soil runoff	N/A	0.3 NTU	(Lowest Monthly % 100%)	100% - 100%	-	
<b>Turbidity (NTU/Highest Single Measurement)</b> Soil runoff	N/A	1 NTU	0.12	N/A	-	
<b>INORGANIC CONTAMINANTS</b>						
<b>Barium (ppm)</b> Discharge of drilling wastes & metal refineries; natural erosion	2	2	0.0193	0.0191 – 0.0193	-	
<b>Nitrate as Nitrogen (ppm)</b> Runoff from fertilizer; Leaching from septic tanks; erosion	10	10	0.36	0.32 – 0.36	-	
<b>Total Nitrate &amp; Nitrite as Nitrogen (ppm)</b> Runoff from fertilizer; Leaching from septic tanks; erosion	10	10	0.36	0.32 – 0.36	-	
<b>TOTAL ORGANIC CARBON</b>						
<b>TOC (Total Organic Carbon)</b>	The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by the IEPA					
<b>STATE REGULATED CONTAMINANTS</b>						
<b>Fluoride (ppm)</b> Natural erosion; Water additive which promotes healthy teeth; Discharge from fertilizer and aluminum deposits	4	4	0.75	0.59 – 0.75	-	
<b>UNREGULATED CONTAMINANTS</b>						
<b>Sulfate (ppm)</b> Natural erosion	N/A	N/A	26.3	26.2 – 26.3	-	
<b>Sodium (ppm)</b> Natural erosion; Used in water softening	N/A	N/A	8.06	7.81 – 8.06	-	
<b>RADIOACTIVE CONTAMINANTS</b>						
<b>Combined Radium 226/228 (pCi/L)</b> Decay of man-made deposits	0	5	0.84	0.50 – 0.84	-	2/11/14
<b>Gross Alpha Emitters</b> excluding radon and uranium (pCi/L)	0	15	6.6	6.1 – 6.6	-	2/11/14

### Water Quality Data Table Footnotes

**Turbidity:** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

**Unregulated Contaminants:** A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

**Fluoride:** Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.7 mg/l with a range of 0.6 mg/l to 0.8 mg/l (mg/l = ppm).

*Note: The Village of Lombard does not add fluoride to the water. The City of Chicago adds fluoride to the water at the Water Purification Plants and remains in the same concentration to your home.*

**Sodium:** There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about his level of sodium in the water.

## Water Conservation and Your Water Meter



Huh? What does my water meter have to do with water conservation? Water conservation is something that we all should practice. Except for the air we breathe, water is the single most important element in our lives and too precious to waste! Did you also know that the average U.S. household uses approximately 100 gallons per person per day?

You can play a role in conserving water and save yourself some money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It isn't hard to conserve water, here are a few tips:

- Replace old fixtures with *Watersense* high efficiency models that use 20% less water (toilets, faucets, and showerheads).
- Teach your kids and yourself to limit showers to 3 – 5 minutes, turn off the tap while brushing teeth and shaving, make it a family effort to reduce water consumption and maybe even lower your water bill!
- Reduce outdoor water use – 1/3 of the average household water use is outdoors, behavior changes and transition to native plantings and alternative watering methods can create substantial savings. Lawns typically only need 1 inch of water per week. Watering should be done before 10:00 am or after 6:00 pm to avoid peak evapotranspiration.
- Fix your leaking toilets and faucets. These repairs are usually inexpensive and only take a few minutes to complete. You can check your toilets for leaks by adding a small amount of food coloring to the water tank – if the food coloring makes it into the bowl without flushing, you have a leak.

Our commercial consumers can join in as well!

- Replace your old pre-rinse spray valves – you will be amazed at the savings you will see.
- Promote water conservation practices in hotels and restaurants, such as reusing linens for multi-night stays.

## Water Meter Replacement

The Village of Lombard is currently conducting its mandatory Water Meter Replacement Program. Through the program outdated water meters and



associated meter interface units (MIUs) that were installed in the mid 1980's will be replaced in residential homes and businesses throughout the village. This project is needed because the majority of the Village's water meters are over 25 years old and have exceeded their life expectancy.

The updated meter reading system will also allow the Village to obtain readings using radio frequency technology instead of the current walk-by read method. The new meters will be read automatically and will increase efficiency, improve water accountability and provide increased information to consumers regarding their usage.

The Village has contracted with Water Resources Inc. and its affiliated company Water Services Company, to install the new metering equipment. Installation will require access to residential and commercial properties.

Please visit the Village Water Meter web page at [www.villageoflombard.org/watermeters](http://www.villageoflombard.org/watermeters) for more information and frequently asked questions.

Your water meter can be your ally! Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Take a reading from your water meter, wait 15 minutes and check again. If it moved, you have a leak.

You can give the Utilities Division a call to help you on this one. If you have questions regarding your water meter, meter reading, an estimated bill, or a high bill due to excessive consumption, please call the Water Billing Division at 630-620-5920 for help.

Coming soon with your new water meter; a customer portal that can help you track your usage, set up alerts for leaks, and see tips to for leak investigation, repairs, and ways to conserve water! Stay Tuned...

## Protect Against Cross-Connections

Every household plumbing has a cross-connection. Cross-connections occur when potable water – safe drinking water – connects to any contaminated source. During the summer, we use more water by washing our cars, filling swimming pools, or fertilizing our lawns with a hose sprayer. It is important to know how to protect our water system. Here are a few places in the home where a cross-connection can exist:

- Laundry sinks and wash basins – a hose threaded onto these faucets and left in buckets are cross-connections.
- Swimming pools
- Lawn irrigation systems – you should be testing your backflow device annually by a certified inspector...
- Garden hose connections to fertilizer sprayers.

If a cross-connection is not properly protected and there is a drop in water pressure, untreated sources of contaminants can be drawn into your household plumbing system and into the Village's distribution system, which is known as backflow.



Here is what you can do to prevent backflow:

- Do not use a hose to open a clogged drain
- Do not leave a hose submersed in water while filling a bucket or pool
- Do not leave fertilizer applicators attached to a hose while not in use
- If you have an underground irrigation system, make sure that a proper Cross-Connection Control Device Inspector (CCCDI) inspects and certifies your backflow device
- Use a hose bib vacuum breaker, which is a simple and inexpensive device that can be installed on faucets to prevent backflows



You probably have received a Biennial Water Use Site Survey in the past year. This is an IEPA required survey that only takes a few minutes to complete. This survey is to gather information regarding potential cross-connections within the Village's water distribution system. Any questions regarding this survey can be directed to the Public Works Department at 630-620-5740 or via email at [publicworks@villageoflombard.org](mailto:publicworks@villageoflombard.org).

## Miscellaneous Public Works Information

**What do I do in case of an emergency?** The Public Works Department office hours are Monday through Friday from 8:00 a.m. to 4:30 p.m. During these hours, call 630-620-5740. If an emergency occurs after business hours, call the Police non-emergency phone number 630-873-4400 and they will contact the on-call Public Works Supervisor to assist you with your emergency. For more information, please visit:

[www.villageoflombard.org/publicworks](http://www.villageoflombard.org/publicworks)